

## Eco-Friendly Electricity Production from the Waste Heat of Air Conditioners

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**Abstract :** This is a new innovation that can be developed. Here I am going to use the waste heat of air conditioner so as to produce the electricity by using the Stirling engine because this waste heat creates the thermal pollution in the environment. The waste heat from the air conditioners has caused a temperature rise of 1°-2°C or more on weekdays in the Tokyo office areas. This heating promotes the heat-island phenomenon in Tokyo on weekdays. Now these air conditioners creates the thermal pollution in the environment and hence rising the temperature of the environment. Air conditioner generally emit the waste heat air whose temperature is about 50°C which heat the environment. Today the demand of energy is increasing tremendously, but available energy lacks in supply. Hence, there is no option for proper and efficient utilization and conservation of energy. In this paper the main stress is given on energy conservation by using technique of utilizing waste heat from Air-conditioning system. Actually the focus is on the use of the waste heat rather than improving the COP of the air-conditioners; if also we improve the COP of air conditioners gradually it would emit some waste heat so I want that waste heat to be used up. As I have used air conditioner's waste heat to produce electricity so similarly there are various other appliances which emit the waste heat in the surrounding so here also we could use the Stirling engines and Geothermal heat pump concept to produce the electricity and hence can reduce the thermal pollution in the environment.

**Keywords :** stirling engine, geothermal heat pumps, waste heat, air conditioners

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